

## INFORMATION DISCLOSURE CITATION

Attorney Docket No.: GC590-2-C1	Serial No.: <del>Unassigned</del> 10/663,450
Applicant: Penttila et al.	
Filing Date: Filed Herewith	Group: <del>Unassigned</del> 1636
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## US PATENT DOCUMENTS

Examiner's	Document				Sub-	Filing
Initial	Number	Date	Name	Class	Class	Date
WS	*5,010,182	4/23/91	Brake et al.	536	27	7/28/87
WS	*5,874,276	2/23/99	Fowler et al.	435	209	5/24/95

## FOREIGN PATENT DOCUMENTS

Examiner's	Document				Sub-	Translation
Initials	Number	Date	Country	Class	Class	Yes/No
WS	*0 117 060	8/29/84	EPO			
WS	*0 362 179	4/04/90	EPO			
WS	*2 211 504	7/05/89	UK			
WS	*WO 90/13846	11/15/90	PCT			

## OTHER DOCUMENTS

Examiner's	
Initials	Author, Title, Date, Pertinent Pages, etc.
WS	** Ausubel et al., Current Protocols in Molecular Biology, (1987) Greene Publishing and Wiley Interscience, N.Y., (Supplemental through 1999)
	*Altschul et al., "Basic Local Alignment Search Tool," J. of Mol. Biol., Vol. 215, pp. 403-410, 1980.
	*D. Benson et al., "GenBank", Nucleic Acids Research, Vol. 26, pp. 1-7, 1998
	*Blond-Elguindi et al., "Affinity Panning of a Library of Peptides Displayed on Bacteriophages Reveals the Binding Specificity of BiP," Cell, Vol. 75, pp. 717-728, November 1993
	*Chapman et al., "Translational attenuation mediated by an mRNA intron," Current Biology, Vol. 7, pp. 850-859, October 1997
	*Cox et al., "A Novel Mechanism for Regulating Activity of a Transcription Factor that Controls the Unfolded Protein Response," Cell, Vol. 87, pp. 391-404, November 1996
	*Cox et al., "Transcriptional Induction of Genes Encoding Endoplasmic Reticulum Resident Proteins Requires a Transmembrane Protein Kinase," Cell, Vol. 73, pp. 1197-1206, June 1993
	*Dunn-Coleman et al., "Commercial Levels of Chymosin Production by Aspergillus," Bio/Technology, Vol. 9, pp. 976-981, October 1991
	*Gething et al., "Cell-surface expression of influenza haemagglutinin from a cloned DNA copy of the RNA gene," Nature, Vol. 293, pp. 620-625, October 1981
	*Gietz et al., "Improved method for high efficiency transformation of intact yeast cells," Nucleic Acids Research, Vol. 20, p. 1425, 1992
	*Gonzalez et al., "Mechanism of non-spliceosomal mRNA splicing in the unfolded protein response pathway," EMBO J., Vol. 18, pp. 3119-3132, 1999
	*Graham et al., "Characteristics of Human Cell Line Transformed by DNA from Human Adenovirus Type 5," J. Gen. Virol. Vol. 38, pp. 59-72, 1977
	*Hammond et al., "Quality control on the secretory pathway," Curr. Biol., Vol. 7, pp. 523-529, 1995
	*Harmsen et al., "Overexpression of binding protein and disruption of the PMR1 gene synergistically stimulate secretion of bovine prochymosin but not plant Thaumatin in yeast," App. Microbiol. Biotechnol. Vol. 46, pp. 365-370, 1996
	*Harris et al., "Molecular cloning and nucleotide sequence of cDNA coding for calf preprochymosin," Nucleic Acids Research, Vol. 10, pp. 2177-2187, 1982
	*Heinkoff et al., "Amino acid substitution matrices from protein blocks," Proc. Natl. Acad. Sci. USA, Vol. 89, pp. 10915-10919, November 1992
WS	*Hess et al., "Cooperation of Glycolytic Enzymes," Adv. in Enzyme Reg., Vol. 7, pp. 149-167, 1968
Examiner	Date Considered
Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	
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**OTHER DOCUMENTS**

WS	
	*Hitzeman et al., "Isolation and Characterization of the Yeast 3-Phosphoglycerokinase Gene (PGK) by an Immunological Screening Technique," J. of Biolog. Chem., Vol. 255, No. 24, pp. 12073-12080, 1980
	*Holland et al., "Isolation and Identification of Yeast Messenger Ribonucleic Acids Coding for Enolase, Glyceraldehyde-3-phosphate Dehydrogenase, and Phosphoglycerate Kinase," Biochemistry, Vol. 17, No. 23, pp. 4900-4907, 1978
	*Howard et al., "The unfolded protein response signal transducer Irep promotes secretion of heterologous proteins in <i>Saccharomyces cerevisiae</i> ," J. of Cell. Biochem. Suppl., no. 19B, 1995, p.209.
	*Hsiao et al., "High-frequency transformation of yeast by plasmids containing the cloned yeast ARG4 gene," Proc. Natl. Acad. Sci. USA, Vol. 76, pp. 3829-3833, August 1979
	*Jeenes et al., "Isolation and characterization of a novel stress-inducible PDI-family gene from <i>Aspergillus niger</i> ," Gene, vol. 193, 1997, pp. 151-158.
	*Kaiser et al., "The use of Phage Lambda Replacement Vectors in the Construction of Representative Genomic DNA Libraries," IRL Press, Oxford, pp. 1-47, 1985
	*Karlin et al., "Applications and statistics for multiple high-scoring segments in molecular sequences," Proc. Natl. Acad. Sci. USA, Vol. 90, pp. 5873-5877, June 1993
	*Kawahara et al., "Endoplasmic Reticulum Stress-induced mRNA Splicing Permits Synthesis of Transcriptions Factor Hac1p/Ern4p that Activates the Unfolded Protein Response," Mol. Biol. of the Cell, Vol. 8, pp. 1845-1862, October 1997
	*Keown et al., "Methods for Introducing DNA into Mammalian Cells," Methods in Enzymology, Vol. 185, pp. 527-537, 1990
	*McMillan et al., "The cellular response to unfolded proteins: intercompartmental signaling," Curr. Opinion in Biotechnology, Vol. 17, pp. 540-545, 1994
	*Mansour et al., "Disruption of the proto-oncogene int-2 in mouse embryo-derived stem cells: a general strategy for targeting mutations to non-selectable genes," Nature, Vol. 336, pp. 348-352, November 1988
	*Mantei et al., "Rabbit $\beta$ -globin mRNA production in mouse L cells transformed with cloned rabbit $\beta$ -globin chromosomal DNA," Nature, Vol. 281, pp. 40-46, September 1979
	*Mather et al., "Establishment and Characterization of Two Distinct Mouse Testicular Epithelial Cell Lines," Biol. of Reprod. Vol. 23, pp. 243-252, 1980
	*Motenecourt et al., "Selective Screening Methods for the Isolation of High Yielding Cellulase Mutants of <i>Trichoderma reesei</i> ," Amer. Chem. Society, Vol. 181, pp. 289-301, 1979
	*Mori et al., "Palindrome with Spacer of One Nucleotide Is Characteristic of the cis-Acting Unfolded Protein Response Element in <i>Saccharomyces cerevisiae</i> ," J. Biol. Chem., Vol. 273, No. 18, pp. 9912-9920, 1998
	*Mori et al., "A Transmembrane Protein with a cdc2'/CDC28-Related Kinase Activity Is Required for Signaling from the ER to the Nucleus," Cell, Vol. 74, pp. 743-756, August 1993
	*Mori et al., "Cloning of <i>Saccharomyces cerevisiae</i> gene ERN4 encodin transcription factor UPRF responsible for the unfolded protein-response (UPR) pathway leading to the induction of ER-localized stress proteins," Chemical Abstracts, Vol. 128, no. 26, 29 June 1998 (1998-06-29) Columbus, Ohio, US
	*Needleman et al., "A General Method Applicable to the Search for Similarities in the Amino Acid Sequence of Two Proteins," J. Mol. Biol., Vol. 48, pp. 443-453, 1970
	*Pahl et al., "A novel signal transduction pathway from the endoplasmic reticulum to the nucleus is mediated by transcription factor NF- $\kappa$ B," EMBO J., Vol. 14, pp. 2580-2588, 1995
	*Parlati et al., " <i>Saccharomyces cerevisiae</i> CNE1 Encodes an Endoplasmic Reticulum (ER) Membrane Protein with Sequence Similarity to Calnexin and Calreticulin and Functions as a Constituent of the ER Quality Control Apparatus," J. Biol. Chem., Vol. 270, pp. 244-253, January 1995
	*Pearson et al., "Improved tools for biological sequence comparison," Proc. Natl. Acad. Sci. USA, Vol. 85, pp. 2444-2448, April 1988
	*Penttila et al., "Expression of Two <i>Trichoderma reesei</i> Endoglucanases in the Yeast <i>Saccharomyces cerevisiae</i> ," Yeast, Vol. 3, pp. 175-185, 1987
	*Penttila et al., "A versatile transformation system for the cellulolytic filamentous fungus <i>Trichoderma reesei</i> ," Gene, Vol. 61, pp. 155-164, 1987
	*Punt et al., "Analysis of the role of the gene bipA, encoding the major endoplasmic reticulum chaperone protein in the secretion of homologous and heterologous proteins in black <i>Aspergilli</i> ," Appl. Microbiol. Biotechnol, Vol. 50, pp. 447-454, 1998,
WS	*Robinson et al., "Protein Disulfide Isomerase Overexpression Increases Secretion of Foreign Proteins in <i>Saccharomyces cerevisiae</i> ," BioTechnology, Vol. 12, pp. 381-384, April 1994
Examiner	Date Considered
Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 809; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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**OTHER DOCUMENTS**

WS	*Ruohonen et al., "Modifications to the ADH1 promoter of <i>Saccharomyces cerevisiae</i> for efficient production of heterologous proteins," <i>J. of Biotechnology</i> , Vol. 39, pp. 193-203, 1995
	*Ruohonen et al., "Efficient secretion of <i>Bacillus amyloliquefaciens</i> $\alpha$ -amylase cells by its own signal peptide from <i>Saccharomyces cerevisiae</i> host," <i>Gene</i> , Vol. 59, pp. 161-170, 1987
	*Saloheimo et al., "A novel, small endoglucanase gene, eg15, from <i>Trichoderma reesei</i> isolated by expression in yeast," <i>Mol. Microbiol.</i> Vol. 13, pp. 219-228, 1994
	*Saloheimo et al., "The protein disulphide isomerase gene of the fungus <i>Trichoderma reesei</i> is induced by endoplasmic reticulum stress and regulated by the carbon source," <i>Mol. Gen. Genet.</i> Vol. 262, pp. 35-45, 1999
	** Sambrook et al., "Molecular Cloning: A Laboratory Manual, New York: Cold Spring Harbor Press, 1989
	*Shamu et al., "Oligomerization and phosphorylation of the Ire1p kinase during intracellular signaling from the endoplasmic reticulum to the nucleus," <i>EMBO J.</i> , Vol. 15, pp.3028-3039, 1996
	*Sherman, F., "Getting started with Yeast," <i>Methods in Enzymology</i> , Vol. 194, pp.3-21, 1991.
	*Shoemaker et al., "Molecular Cloning of Exo-Cellobiohydrolase I derived from <i>Trichoderma reesei</i> ," <i>Bio/Technology</i> , Vol. 1, pp. 691-696, 1983
	*Sidrauski et al., "The Transmembrane Kinase Ire1p is a Site-Specific Endonuclease That Initiates mRNA Splicing in the Unfolded Protein Response," <i>Cell</i> , Vol. 90, pp. 1031-1039, 1997.
	*Sidrauski et al., "tRNA Ligase Is Required for Regulated mRNA Splicing in the Unfolded Protein Response," <i>Cell</i> , Vol. 87, pp. 405-413, 1996.
	*Smith, T., "Comparison of Biosequences," <i>Adv. In App. Math.</i> Vol. 2, pp 482-489, 1981.
	*Solingen et al., "Fusion of Yeast Spheroplasts," <i>J. of Bacteriol.</i> , Vol. 130, pp. 946-947, 1977.
	*Stalbrand et al., "Cloning and expression in <i>Saccharomyces cerevisiae</i> of a <i>Trichoderma reesei</i> $\beta$ -Mannanase Gene Containing a Cellulose Binding Domain," <i>App Environ. Microbiol.</i> Vol. 61, pp. 1090-1098, 1995
	*Urtaub et al., "Isolation of Chinese hamster cell mutants deficient in dihydrofolate reductase activity," <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 77, pp. 4216-4220, July 1980
↓	*Verduyn et al., "Effect of Benzoic Acid on Metabolic Fluxes in Yeasts: A Continuous-Culture Study on the Regulation of Respiration and Alcoholic Fermentation," <i>Yeast</i> , Vol. 8, pp. 501-517, 1992
WS	*Wach et al., "New Heterologous Modules for Classical or PCR-based Gene Disruptions In <i>Saccharomyces cerevisiae</i> ," <i>Yeast</i> , Vol. 10, pp. 1793-1808, 1994
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